

IV B.Tech I Semester Regular Examinations, November/December 2005
COMMUNICATION SYSTEMS
(Electronics & Communication Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Why frequency drift & scintillation should be very small in radio transmitter.
(b) Give & explain radio frequency spectrum used for various communications.
(c) Draw the block diagram of a filter type SSB-SC transmitter with 20 KHZ oscillator & emission frequency in the range of 6 MHZ. Explain the function of each stage. [4+4+8]
2. Write short notes on:
(a) Image frequency and its reduction.
(b) Fading and diversity reception.
(c) Squelch circuit. [6+6+5]
3. (a) Differentiate between simple, delayed and amplified AGC and explain their action with the help of simple circuits blocks.
(b) Discuss briefly similarities and differences between FM and AM receivers.
(c) Write in detail about the limiter used in FM receiver. [8+4+4]
4. (a) Write about the classification of switching systems?
(b) What is the need for telecommunication networks and explain about it? [8+8]
5. (a) Obtain blocking probability for a two stage time space switch?
(b) Draw the block diagram for memory controlled time division space Switch? [8+8]
6. (a) Write about charging plan?
(b) Discuss about Line of sight propagation? [8+8]
7. (a) Write about network architecture of ISDN?
(b) Discuss about cellular Mobile telephony? [10+6]
8. What is meant by frequency reuse? What are its advantages and disadvantages in mobile radio communications? [4+6+6]
